

AMENDMENTS TO THE CLAIMS

The following listing of Claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Cancelled)

Claim 2 (Previously Presented) A trocar system as recited in Claim 3 wherein the movement of the release member causes the blocking surface to be displaced out of axial alignment with the shield.

Claim 3 (Currently Amended) A trocar system which comprises:

 a cannula forming an opening [longitudinally] therethrough and having proximal and distal ends, the cannula defining a proximally facing surface [disposed near a proximal end thereof]; and

 an obturator assembly being at least partially insertable [through] within the cannula, the obturator assembly [and] including:

 an obturator housing [disposed at a proximal end, the obturator housing] including a base portion having a distally facing end surface configured and dimensioned to facilitate close proximate positioning thereof with the proximally facing surface of the cannula;

 a penetrating tip [disposed at a distal end];

an elongated shield including a guard [extending from a shaft], the penetrating tip and the guard being movable relative to one another; and

a latch mechanism disposed generally within the obturator housing, which facilitates changing the configuration of the obturator assembly between a fixed-shield orientation, wherein at least a portion of the guard is maintained to extend at least partially distal of the penetrating tip to prevent puncturing of tissue by the penetrating tip, [to] and a non-fixed shield orientation whereby the guard and the penetrating tip are permitted to move relative to one another to facilitate puncturing of tissue by the penetrating tip, the latch mechanism including:

a release member having a button portion and a camming surface; wherein the button portion protrudes at least partially through an opening formed in the distally facing end surface of the obturator housing, the button portion being moveable from a first position extending outwardly from the distally facing end surface of the obturator housing to a second position [wherein the button portion is] positioned further within the obturator housing upon engagement with the proximally facing surface of the cannula; and

a latch operatively associated with the release member, the latch having a blocking surface operatively engageable with the elongated shield and a mating surface, the mating surface cooperating with the camming surface of the release member such that application of a proximally directed force to the distal end of the button portion of the release member during engagement with the proximally facing surface of the cannula [of the obturator assembly] causes the button portion to move to the second position thereof and causes corresponding [to impart vertical] movement of the release member whereby the camming surface moves substantially laterally and biases the mating surface to move the latch such that the blocking surface permits relative axial movement of the shield and the penetrating tip.

Claim 4 (Previously Presented) A trocar system as recited in claim 3 wherein the latch is biased such that the blocking surface is normally disposed in axial alignment with at least a portion of the shield to prevent axial movement thereof.

Claim 5 (Original) A trocar system as recited in claim 2 wherein the blocking surface is disposed proximal of the at least a portion of the shield.

Claim 6 (Previously Presented) A trocar system as recited in claim 3 wherein the release member is configured and dimensioned such that axial movement of the release member imparts lateral movement of the blocking surface of the latch member.

Claim 7 (Previously Presented) A trocar system as recited in claim 3 wherein the obturator includes a shaft fixed relative to the housing and the penetrating tip is a flat knife blade secured to the shaft.

Claim 8 (Previously Presented) A trocar system as recited in claim 3 wherein the elongated shield includes an extended surface which is disposed on the shield such that upon axial movement of the shield, the extended surface biases the release member away from the latch to permit the latch to return to its original orientation.

Claim 9 (Previously Presented) A trocar system as recited in claim 3 wherein the guard is configured and dimensioned to completely enclose the penetrating tip.

Claim 10 (Currently Amended) A trocar system as recited in claim 3[,] wherein the shield and guard are separate elements fitted together during assembly of the obturator.

Claims 11-21 (Cancelled)

Claim 22 (New) A trocar system, which comprises:

 a cannula defining a longitudinal axis and having a longitudinal opening therethrough; and

 an obturator at least partially positionable within the longitudinal opening of the cannula, the obturator including:

 an obturator housing;

 an obturator shaft extending from the obturator housing and receivable within the cannula sleeve, and having a penetrating member adapted to penetrate tissue;

 a guard mounted about the obturator blade, the guard and the obturator shaft being adapted for relative longitudinal movement between a first relative position corresponding to an unarmed condition of the penetrating member and a second relative position corresponding to an armed condition of the penetrating member;

 a latch member associated with the obturator housing, the latch member being moveable from an initial position securing the guard and the obturator shaft in the first relative position to a release position permitting the guard and the obturator shaft to move to the second relative position; and

a release member mounted to the obturator housing and operatively coupled with the latch member, the release member adapted to move the latch member to the release position during positioning of the obturator within the longitudinal opening of the cannula.

Claim 23 (New) The trocar system according to claim 22 wherein the release member is adapted for movement relative to the obturator housing during positioning of the obturator within the longitudinal opening of the cannula, to thereby move the latch member to the release position.

Claim 24 (New) The trocar system according to claim 23 wherein the release member includes a release button, the release button dimensioned to extend distally beyond the obturator housing.

Claim 25 (New) The trocar system according to claim 24 wherein the cannula includes a cannula housing and a cannula sleeve extending from the cannula housing.

Claim 26 (New) The trocar system according to claim 25 wherein the release button is positioned to engage the cannula housing upon mating of the obturator housing and the cannula housing whereby a generally proximally directed force applied by the cannula housing on the release button causes displacement of the release member and movement of the latch member to the release position.

Claim 27 (New) The trocar system according to claim 26 wherein the obturator shaft is fixed relative to the obturator housing, and wherein the guard is adapted for longitudinal movement about the obturator shaft between the first relative position and the second relative position.

Claim 28 (New) The trocar system according to claim 27 wherein the latch member includes a locking surface adapted to securely engage a corresponding locking ledge of the guard when the guard is in the first relative position thereby substantially preventing longitudinal movement of the guard to the second relative position thereof.

Claim 29 (New) The trocar system according to claim 28 wherein the release member is adapted to move the latch member to cause release of the locking surface with the locking ledge of the guard upon mating of the obturator housing with the cannula housing to thereby permit movement of the guard to the second relative position.

Claim 30 (New) The trocar system according to claim 29 wherein the release member includes a camming surface engageable with a corresponding mating surface of the latch member, the camming surface being movable in at least a lateral direction with respect to the longitudinal axis during movement of the release member, to laterally deflect the locking surface of the latch member and cause release thereof with the locking latch of the guard.

Claim 31 (New) The trocar system according to claim 27 wherein the latch member is normally biased toward the initial position thereof.

Claim 32 (New) The trocar system according to claim 31 wherein the latch member is monolithically formed with the obturator housing.

Claim 33 (new) The trocar system according to claim 32 wherein the latch member is arranged within the obturator housing in cantilever relation therewith.

Claim 34 (New) The trocar system according to claim 27 wherein the guard is normally biased toward the first relative position so as to assume the first relative position upon removal of a proximally directed force thereto.

Claim 35 (New) The trocar system according to claim 27 wherein the latch member is adapted to return to the initial position thereof upon removal of the generally proximally directed force on the release button.

Claim 36 (New) The trocar system according to claim 27 wherein the penetrating member includes a generally flat blade.

Claim 37 (New) A trocar system, which comprises:

 a cannula including a cannula housing and a cannula sleeve extending from the cannula housing; and

 an obturator at least partially positionable within the cannula, the obturator including:

an obturator housing for mating with the cannula housing during positioning of the obturator within the cannula;

an obturator shaft connected to the obturator housing;

a penetrating member connected to the obturator shaft;

a protective member coaxially mounted about the penetrating member and being adapted for longitudinal movement between a first position substantially enclosing the penetrating member and a second position to at least partially expose the penetrating member;

a latch member associated with the obturator housing and operatively connected to the protective member, the latch member being moveable from an initial position securing the protective member in the first position to an actuated position operatively releasing the protective member to permit the protective member to move to the second position thereof;

and

a release member mounted to the obturator housing and operatively coupled with the latch member, the release member having a release button positioned to engage the cannula housing upon mating of the obturator housing and the cannula housing to thereby displace the release member and cause movement of the latch member to the actuated position whereby, upon application of a proximal directed force to the protective member, the protective member moves toward the second position thereof.

Claim 38 (New) The trocar system according to claim 37 wherein the penetrating member includes a generally flat blade.

Claim 39 (New) The trocar system according to claim 38 wherein the cannula housing includes a proximally facing surface, the release button engaging the proximally facing surface during mating of the obturator housing and the cannula housing.

Claim 40 (New) The trocar system according to claim 39 wherein the release button distally extends from the obturator housing.

Claim 41 (New) The trocar system according to claim 40 wherein the protective member is normally biased to the first position whereby, upon removal of the proximally directed force, the protective member assumes the first position thereof.

Claim 42 (New) The trocar system according to claim 38 wherein the obturator shaft is longitudinally fixed with respect to the obturator housing.

Claim 43 (New) A method of inserting a trocar system into a patient, comprising the steps of:

providing an obturator assembly including an obturator housing, an obturator shaft extending from the obturator housing and having a penetrating end, and an elongated guard positioned about the penetrating tip;

positioning the obturator assembly within a cannula assembly, the cannula assembly including a cannula housing and a cannula sleeve;

approximating the obturator housing and the cannula housing to move a latch member associated with the obturator assembly from a first position wherein the latch member

retains the guard in an advanced position to at least partially enclose the penetrating member to a second position wherein the latch member releases the guard; and

advancing the obturator assembly and the cannula assembly within the body wall whereby the guard retracts during engagement with the body wall to expose the penetrating tip of the obturator assembly.

Claim 44 (New) The method according to claim 43 wherein the obturator assembly includes a release associated with the latch member and wherein, during the step of approximating, the release contacts the cannula housing and is moved to cause corresponding movement of the latch member from the first position to the second position.